

**CENTRE OF STUDIES FOR BUILDING SURVEYING
FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING
UNIVERSITI TEKNOLOGI MARA**

**THE CHALLENGES IN MAINTAINING GREEN
OFFICE BUILDING AT MALAYSIA**

**SUZILAWANI BINTI SULAIMAN
(2013206908)**

Bachelor of Building Surveying (Hons)

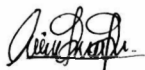
July 2015

**CENTRE OF STUDIES FOR BUILDING SURVEYING
FACULTY OF ARCHITECTURE, PLANNING AND
SURVEYING
UNIVERSITI TEKNOLOGI MARA**

**THE CHALLENGES IN MAINTAINING GREEN OFFICE
BUILDING AT MALAYSIA**

**“I hereby declare that this academic project is the result of my own
research except for the quotation and summary which have been
acknowledged”**

Student's Name : Suzilawani Binti Sulaiman

Signature : 

UITM No. : 2013206908

Date : July 10th, 2015

ACKNOWLEDGEMENT

First to all, i would like to thanks to ALLAH SWT because HIM bless and give us good health, finally i can finished this dissertation due on the submission date. I also would like to express my highest gratitude to all those who have given the assistance and co-operation in many forms weather it is in terms of physical or technical assistance to the completion of this dissertation successfully.

I also want express my thanks to Maintenance Team at Green office building which is Putrajaya Holding Building, Diamond Building, Low Energy Office (LEO) Building and DIGI Technology Operation Centre, I am really appreciate to the all cooperation and with all the information that gives by them. Thus, i can complete this task like desired.

Next, i would like to take this opportunity to thank to my supervisor, Madam Wan Zuriea Wan Ismail, who has taught me on how to manage and carried out this academic project. She also tells me how to complete this academic project successfully.

Not forget thank you to all friends for always helped and shared the information about this academic project. Lastly, not forget to my parent and family that has given a lot of moral support and encouragement for me.

Thank you.

ABSTRACT

The Green building development has become a trend in recent years because it giving many benefit especially on environmental, social and economic aspect. However, many have argued that the complexities rendered by green buildings during the operational and maintenance phase often overshadow the benefits that can be gained through the development of green buildings. Several factors that lead to complexities in managing and maintaining green buildings. There are many barriers that maintenance team faced in maintaining green office building. This study determines the challenges in maintaining green office buildings in Malaysia. As an effort to shed light into this issue, a questionnaire survey and interview was carried out involving green office building maintenance management teams in Putrajaya Holding Building, Diamond Building, Low Energy Office (LEO) Building and Digi Technology Operation Centre Building. Frequency and criticality index calculations were carried out to rank the factors according to level of agreement from the respondent based on questionnaire and interview session. The result indicated there are three factors of challenges in maintaining green office building which is technical factor, managerial factor and environmental and biological effect. The common problem and challenges factor in maintaining green office building is managerial factor.

CHAPTER 1

INTRODUCTION

1.1 RESEARCH BACKGROUND

According to Green Building Index Sdn Bhd (2013), the green building is the best option in increasing the efficiency of water, materials and resources use of energy, and it also can reduce building impact on human health and also environment during the building's life cycle. The environmental impact is expected to increase with population growth, demographic changes and economic development. Thus, green buildings were introduced in the effort to reduce the impact of the built environment on the natural environment.

However, without a sufficient experience, the operational and maintenance of green building have faced with some complexities and difficulties which may lead failure and cause decreasing of development green buildings. While in the context of green building, Commonwealth of Pennsylvania (2011) claimed that, the impact of operation and maintenance of buildings and areas related to health and building occupants. Furthermore, Zainol et al. (2013) have mentioned that maintenance of green building only having impacts on operation cost but also affected on social and environmental aspect. In international level, there are many factors that led to the theory of green building operation and maintenance. However, there is no study on office buildings in Malaysia about the problems that often occurred in maintaining green office buildings.